

**IN THE CLAIMS:**

1-4. (Canceled).

5. (Previously presented) A peptide comprising a modified tandem GnRH decapeptide sequence capable of inducing an immunogenic response that allows for discrimination between different types of GnRH, said peptide selected from the group consisting of SEQ ID NO: 5, SEQ ID NO: 6, and SEQ ID NO: 7.

6-9. (Canceled).

10. (Previously presented) A vaccine comprising the peptide of claim 5.

11. (Previously presented) The vaccine of claim 10, further comprising an adjuvant.

12. (Previously presented) The vaccine of claim 11, wherein said adjuvant is an oil phase of an emulsion selected from the group consisting of a water-in-oil emulsion and a double oil emulsion.

13-14. (Canceled).

15. (Previously presented) The vaccine of claim 10 that is sufficiently active for administration in a single dose for the essential immunocastration of pigs.

16-26. (Canceled).

27. (Currently amended) A peptide comprising ~~[[a]]~~ at least two modified tandem GnRH decapeptide ~~sequence~~ sequences capable of inducing an immunogenic response that allows for discrimination between different types of GnRH, ~~said peptide comprising at least two coupled GnRH decapeptide sequences wherein at least one of the amino acids of said coupled GnRH decapeptide sequences is replaced by a different amino acid, and wherein said modified tandem GnRH decapeptide sequences are~~ selected from the group consisting of SEQ ID NO: 5, SEQ ID NO: 6, and SEQ ID NO: 7.

28-54. (Canceled).

55. (Currently amended) A peptide comprising a tandem GnRH decapeptide, wherein said peptide is selected from the group consisting of SEQ ID NO: 5, SEQ ID NO: 6, and SEQ ID NO: 7.

56. (Previously presented) A vaccine comprising the peptide of claim 55.

57. (Previously presented) The vaccine of claim 56, further comprising an adjuvant.

58. (Previously presented) The vaccine of claim 57, wherein said adjuvant is an oil phase of an emulsion selected from the group consisting of a water-in-oil emulsion and a double oil emulsion.

59. (Previously presented) The vaccine of claim 56 that is sufficiently active for administration in a single dose for the essential immunocastration of pigs.